

DEPT. OF TRANSPORTATION  
DOCKETS

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June 4, 2002

U.S. Department of Transportation  
Dockets Management Facility  
Room PL-401  
400 Seventh St., SW  
Washington, DC 20590

Re: FHWA Docket No. FHWA-2001-11130 - 20

Dear Ms. Rowe,

Thank you for the opportunity to respond to the subject docket. We do so, not only as a leading supplier of highway safety materials but also as a company that operates a large transportation fleet and that is a major user of highway and transportation resources. 3M maintains a fleet of over 5200 vehicles -- ranging from light cars to large trucks. These vehicles operate under both clear and adverse weather conditions, at all times of the day or night, in and out of work zones. We want to improve safety and mobility in work zones.

We support the establishment of stronger federal regulations covering the planning, operation and monitoring of work zones on the nation's highways. Our support rests upon the belief that the cost of establishing enforceable regulations based on best work zone practices will be justified by significant improvements in safety and mobility.

### **Defining a vision**

Whenever possible, durable materials and superior construction and maintenance practices should be employed to minimize the need for work zones.

When they are needed, work zones should be well planned and coordinated across jurisdictions to reduce the frequency of negative impacts. The best work zones will maintain access to the existing road networks, businesses, etc. while establishing clear alternative routes and offering real-time information to drivers, which will allow them to make informed choices.

Work zones and alternative routes will accommodate all road users, including pedestrians, bicycles, and the disabled. The travel path will be clearly delineated. High visibility, all-weather materials will be used uniformly in all work zones. Advanced communication plans will have alerted the local public to the work and dynamic messaging will give drivers up to the minute information they can use to understand current travel conditions.

Responsibility for every work zone will be established for accountability. Work zone duration will be shortened through incentives based on speed of completion. Work zone safety and mobility parameters will be measured and audited for compliance. Penalties for non-compliance will keep potentially dangerous short cuts in check. Emerging technologies will be evaluated and incorporated into the best-practice regulations as their merit is established.

### **Requirements to Reach the Vision**

- 1) FHWA, in concert with other governing agencies needs to establish federal regulations based on best practices for work zone planning, operation and measurement. Many of the best practices are found in current publications such as the *Older Driver Handbook* published by FHWA in 2001.

Any deviation from the best practices must be justified by the work zone plan.

- 2) A single, unified definition for "work zone" which encompasses the immediate area of work and alternative routes designated for travel must be established. Data collection may require pinpointing areas within a work zone or alternative route, so defining subdivisions of the work zone may be beneficial.
- 3) FHWA must help establish a plan and funding for auditing conformance for work zones to ensure compliance with the plan. Non-compliance should incur penalty.
- 4) FHWA should encourage development and implementation of improved technologies. When a Work Zone Plan is submitted for approval, deviation from best practice may be allowed when, using Engineering Judgment, an innovative technology is likely to improve safety, mobility or without adverse impacting. Use of "proprietary" specifications that

result in improved safety and mobility should be allowed and even encouraged when the alternative would adversely impact safety and/or mobility.

- 5) State-of-the-art materials and technologies including: high observation angle reflective sheeting; driver feedback signs; wet-night reflective pavement markings; linear delineation systems; high visibility protective clothing; wide-angle conspicuity markings on equipment and other technological advances should be incorporated wherever possible to increase safety and improve mobility. Unit bid pricing for work zone safety items can help ensure best practices are implemented as planned.

### **D-M-A-I-C**

We have had rapid and dramatic success implementing what is known as the DMAIC process. The letters stand for Define, Measure, Analyze, Improve and Control. We believe that this process can be applied to FHWA's Work Zone Initiative.

The establishment of a uniform definition and best practices for work zones fall under "Define". FHWA must help train inspectors, agencies, contractors and others associated with the establishment and operation of work zones to define and communicate best practices.

Developing and implementing measurements of work zone safety and mobility establishes the "Measure" step. The total impact of the work zone should be taken into account here. Uniform data collection may require significant training, but standardized procedures for collecting data are essential to the development of a useful national database required to evaluate progress toward the goal.

"Analysis" involves comparing measurements among work zones to determine the root cause of why some work zones are more successful than others. This step may also involve funding research into new materials and practices.

The "Improve" step involves encouraging new technologies and helping establish new best practices by allowing deviation from current practice in a controlled manner.

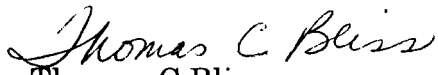
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Incorporating and revising regulations to reflect changes in best practices constitutes the "Control" phase. This ensures that gains made in the past are uniformly implemented and maintained.

In closing, we would like to again express our support of this effort and of all the FHWA efforts aimed at improving work zones. We believe that the increased use best practices can significantly impact both safety and mobility for all concerned. We look forward to more specific plans in the future.

Respectfully submitted,

A handwritten signature in cursive script that reads "Thomas C Bliss".

Thomas C Bliss

3M Traffic Control Materials Division